Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Allocation of Spectrum Below	)	ET Docket No. 94-32
5 GHz Transferred From	)	
Federal Government Use	)	

COMMENTS OF THE CONSUMER ELECTRONICS GROUP OF THE ELECTRONIC INDUSTRIES ASSOCIATION

The Consumer Electronics Group of the Electronic Industries Association ("EIA/CEG") hereby submits the following comments in response to the Notice of Proposed Rulemaking which the Commission issued in the above-captioned proceeding on November 8, 1994.[1] In its *Notice*, the Commission has proposed to reallocate 50 MHz of spectrum from Federal Government to private sector use: 2390-2400 MHz; 2402-2417 MHz; and 4660-4685 MHz.[2] More specifically, the Commission has proposed to reallocate the 2402-2417 MHz band -- which is now used by Part 15 devices and industrial, scientific and medical applications -- to fixed and mobile services. EIA/CEG opposes this proposal. As set forth more fully below, this band should be available for Part 15 use.[3]

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[1] *See Allocation of Spectrum Below 5 GHz Transferred From Federal Government Use*, Notice of Proposed Rulemaking, ET Docket No. 94-32, FCC 94-272 (released Nov. 8, 1994) [hereinafter "*Notice*"].

[2] *Id.*

[3] EIA/CEG takes no position regarding the allocation of the 2390-2400 MHz and 4660-4685 MHz bands.

I. INTRODUCTION AND INTEREST OF EIA/CEG

EIA/CEG is the principal trade association of the consumer electronics industry. EIA/CEG members design, manufacture, import, distribute, and sell a wide variety of consumer electronics equipment, including various types of Part 15 devices. EIA/CEG and its member companies therefore have a major interest in this proceeding.

In its *Notice* the Commission has proposed to reallocate the 2402-2417 MHz band to fixed and mobile services.[4] The Commission has also proposed -- albeit in another proceeding -- to reallocate the only other band currently available for Part 15 use, i.e., 902-928 MHz, to other uses.[5] If the Commission were to go forward with its proposal to reallocate the 2402-2417 MHz band,[6] Part 15 devices would be relegated to spectrum that is susceptible to interference by microwave ovens,[7] spread spectrum systems would suffer a substantial reduction in capacity and, existing Part 15 systems would have to be redesigned and reengineered because of the reduction in available spectrum. EIA/CEG therefore urges the Commission not to reallocate the 2402-2417 MHz band to fixed and mobile services and, instead, to preserve the enormous benefits which the public now derives from the use of this spectrum by Part 15 devices.

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[4] *Notice* ¶ 9.

[5] *Amendment of Part 90 of the Commission's Rules to Adopt Regulations For Automatic Vehicle Monitoring Systems*, PR Docket No. 93-61, 8 FCC Rcd 2849 (1993).

[6] The 2400-2402 MHz portion of the band would also be effectively lost to Part 15 use because it would be impractical to use this spectrum without the adjacent 2402-2417 MHz band.

[7] Although spectrum above 5 GHz is allocated to Part 15 devices, using this spectrum is not economically feasible at the present time.

II. PART 15 DEVICES HAVE BECOME ESSENTIAL TO U.S. CONSUMERS AND BUSINESSES.

During the course of the last two decades, Part 15 devices have become ubiquitous in American homes. Commercial applications of Part 15 have also become part and parcel of daily business life. Indeed, many businesses literally could not function without the information and support provided by Part 15 equipment. Consumers and businesses have enthusiastically embraced the use of such diverse Part 15 devices as cordless telephones, wireless speakers, wireless alarm systems, wireless VCRs, wireless headphones, baby monitors, radio frequency remote controls, wireless LANs, automated meter reading systems, inventory control systems, and delivery control systems. The installed base of Part 15 devices numbers in the millions, and billions of dollars are spent each year on such devices.

The widespread use of Part 15 devices -- which continues to grow at an astonishing rate -- is directly attributable to the Commission's decision to encourage the use of such equipment (including spread spectrum devices).[8] As the Commission has recognized, low power devices are inherently efficient because they can operate on many frequencies without interfering with licensed services.[9] Recognizing the value of these devices, industry has devoted enormous resources towards the development of a multitude of new and innovative products for business and residential use. As a consequence, a whole new communications market has been

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[8] *See Revision of Part 15 of the Rules Regarding the Operation of Radio Frequency Devices Without an Individual License*, 4 FCC Rcd 3493 (1989); *Amendment of Parts 2 and 15 of the Rules with Respect to the Operation of Spread Spectrum Systems*, 5 FCC Rcd 4123 (1990).

[9] Part 15 devices may not interfere with licensed services and must accept interference from licensed services. 47 C.F.R. § 15.5.

created. Its phenomenal growth is attributable to the Commission's foresight in allocating adequate spectrum in which the devices can fully operate.

In many ways, the Part 15 market is the kind of open, competitive, and innovative market which the Commission has always attempted to nurture. Consumers can use these devices to create sophisticated systems without obtaining service from regulated carriers or securing regulatory approval. Indeed, many services are being created using Part 15 devices that would not be economically viable using licensed services. Part 15 devices have thus created an environment in which consumer needs are readily met with a minimum of active Commission involvement. The Commission should not risk these advantages, and should therefore leave the current allocation of the 2402-2417 MHz band unchanged.

III. THE 2402-2417 MHz BAND SHOULD BE ALLOCATED PRIMARILY FOR PART 15 AND ISM USE.

In its *Notice*, the Commission has proposed that the 2402-2417 MHz band be allocated generally to fixed and mobile services and auctioned for use by as yet unspecified services. EIA/CEG opposes this proposal. The highest, best and most efficient use of this spectrum is by Part 15 devices, subject, of course, to interference by ISM devices.

The continued availability of this band is critical not only to current Part 15 usage but also for new and improved future Part 15 applications. At present, only the 902-928 MHz and 2400-2483.5 MHz bands can practically be utilized by Part 15 devices.[10] Although additional bandwidth above 5 GHz is technically available for use by Part 15 devices, it is not

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[10] *See id.* § 15.247.

economical to operate in this band with current technology. Operations over 5 GHz would require significantly more infrastructure and would dramatically increase the cost of Part 15 systems.

The 2402-2417 MHz band which is proposed for reallocation in this proceeding is a large part of the only remaining spectrum that is likely to be substantially available to Part 15. Because of the Commission's rules regarding spread spectrum Part 15 devices, taking away the 2402-2417 MHz band from Part 15 use would severely restrict the use of the entire 2400-2483.5 MHz band by such devices.

In addition to being needed for Part 15 uses, the 2402-2417 MHz band is poorly suited for licensed services. Its use by ISM devices subjects it to significant interference. ISM equipment, including microwave ovens, create an enormous amount of interference "noise" which is likely to continue for the foreseeable future. This noise problem would make licensed operations difficult, if not impossible. The Commission itself came to a similar conclusion in its report to the Secretary of Commerce, where the Commission concluded that this band would have "less value" for licensed services.[11] Thus, the failure to allocate this band to licensed services will not preclude the introduction of future communications services.

Reallocation of the 2402-2417 MHz band -- which is currently used for Part 15 devices worldwide -- would also threaten the competitiveness of the U.S. Part 15 export industry. U.S. manufacturers of Part 15 devices are market leaders and have consistently been in the forefront of developing new technologies. If they are forced to abandon domestic use of

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[11] *Report to Ronald H. Brown, Secretary, U.S. Department of Commerce, Regarding the Preliminary Spectrum Reallocation Report*, 75 R.R.2d 1141, 1149 (P & F) (1994).

this band because of the proposed reallocation, their ability to compete in foreign markets would be threatened. Efficient production of sophisticated communications equipment requires a certain scale in order to be economically viable. The export market alone would often not be sufficient to maintain production, resulting in the loss of exports and American jobs. The adverse impact of reallocating the 2402-2417 MHz band on U.S. manufacturers cannot be ignored. As the Commission itself has recognized, "reallocation of this band would jeopardize the significant private sector investment already made in developing new technologies operating under Part 15."[12] It would be disserve the public interest to risk the large investment in, and the contributions made by the manufacturers of, Part 15 devices for the purpose of encouraging purely speculative licensed services of questionable, if any, value.

The Commission should therefore preserve the benefits which Part 15 has brought to the American public by declining to allocate the 2402-2417 MHz to other services. Indeed, in order to provide the Part 15 industry with regulatory certainty in planning new products, the Commission should permanently allocate this band to Part 15 and ISM use.

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[12] *Id.*

IV. CONCLUSION

For all of the reasons set forth above, EIA/CEG urges the Commission not to allocate the 2402-2417 MHz band to fixed and mobile services. The highest and best use of this band is by Part 15 devices.

Respectfully submitted,

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